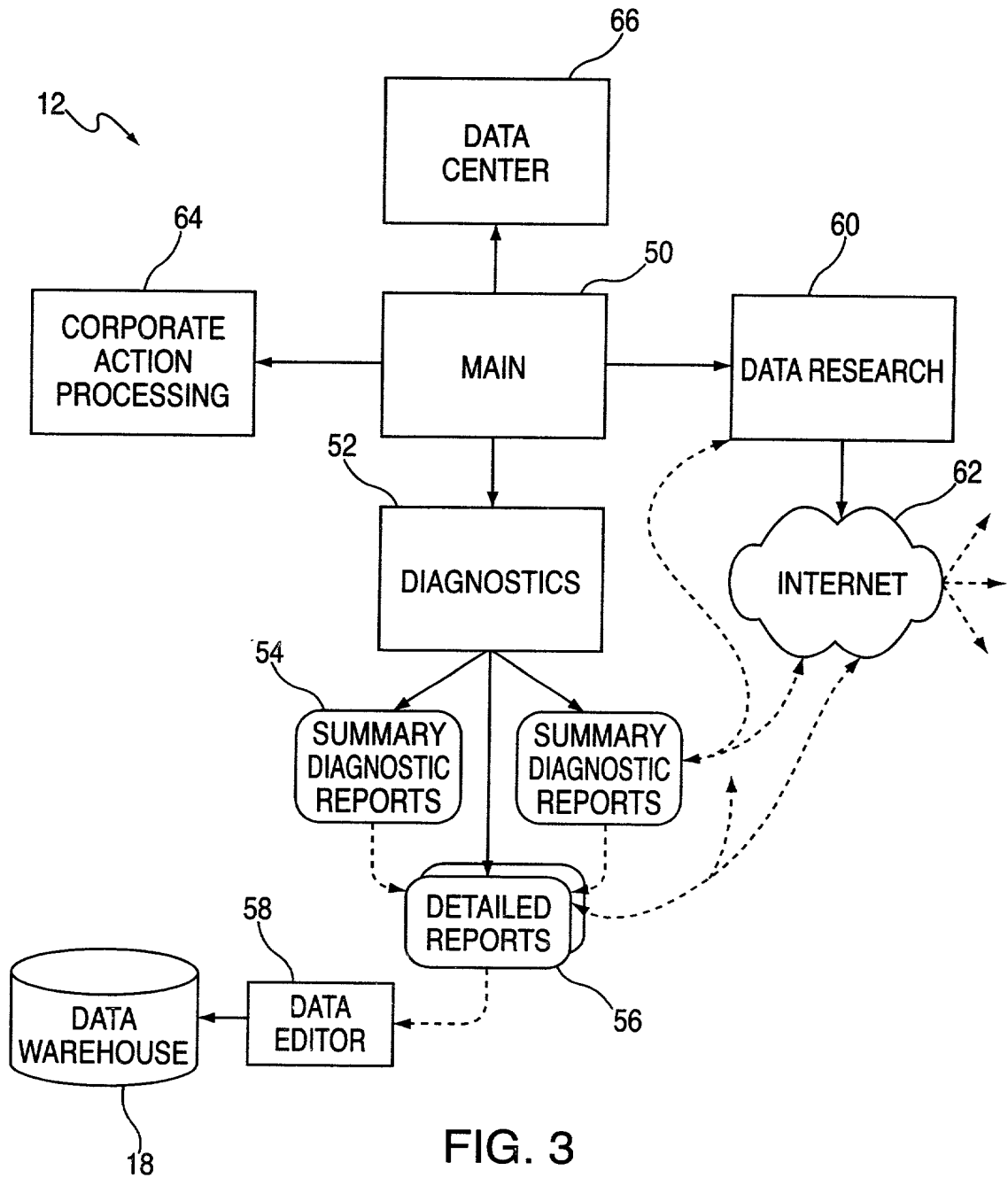


FIG. 1





DIAGNOSTICS

HOME > DATA > DIAGNOSTICS

2001	5	21	RUN REPORT	U.S.	JAPAN	U.K.	EUROPE	GLOBAL
ESTIMATED V. ACTUAL PORTFOLIO RETURNS								
OUTLIERS								
CROSS-SECTIONAL VOLATILITY								
CORPORATE ACTIONS								
UNKNOWN SECURITIES								
SPLIT CALENDAR								
FX RATES OUTLIERS								
RELATED LINKS								

CBOE MERGER & SPLIT BULLETIN  
NASDAQ RECENT IPO FILINGS  
YAHOO! IPOs

FIG. 4

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## ESTIMATED (AKA W ' R) V. ACTUAL PORTFOLIO RETURNS : JAPAN

HOME &gt; DATA &gt; DIAGNOSTICS &gt; ESTIMATED V. ACTUAL RETURNS

## DEFINITIONS:

- ESTIMATE = ESTIMATED ACCOUNT TOTAL RETURN BASED UPON PACE MARKET DATA.
- ACTUAL = ACTUAL ACCOUNT TOTAL RETURN AS REPORTED BY IPVO.
- BPS DIFF = |ESTIMATE - ACTUAL|
- ASSETS = CHANGE IN NUMBER OF ASSETS IN AN ACCOUNT, (ASSETS[t] - ASSETS[t-1])

CLICK ON THE PORTFOLIO NAME TO VIEW INFORMATION (E.G., ISSUERS NAME, PACE ID, CUSIP AND/OR SEDOL, PRICE, SHARES, TOTAL RETURN, DIVIDENDS) FOR EACH CONSTITUENT.

PORTFOLIO NAME	PORTFOLIO #	ESTIMATE	ACTUAL	BPS DIFF	ASSETS
KAMPO JAPAN QUANTS EQUITY	350996	0.708	N/A	N/A	-1
JR HOKKAIDO	350955	1.068	N/A	N/A	0
JAPAN TELECOMMUNICATIONS WELFARE ASSN. (TELWEL)	350949	1.060	N/A	N/A	0
NENPUKU - LPS	350948	1.104	N/A	N/A	0
JAPAN ACTIVE EQUITY PORTFOLIO (POOLED)	350340	1.106	N/A	N/A	0
GS JAPANESE EQUITY FUND (ONSHORE)-USHIWAKAMARU	350330	1.033	N/A	N/A	0
NIPPON STEEL	350042	1.064	N/A	N/A	0
TOKYO ELECTRIC POWER QPF	350026	1.073	N/A	N/A	0
CSK EMPLOYEES PENSION FUND	350025	0.791	N/A	N/A	0
CANON PENSION FUND	350003	1.049	N/A	N/A	0
MELCO PENSION TRUST	350001	1.081	N/A	N/A	0
LINCOLN JAPAN LIFE	170210	1.122	N/A	N/A	0
MINEWORKERS JAPAN EQUITY	100832	0.972	N/A	N/A	-1
STAFF JAPAN EQUITY	100807	0.975	N/A	N/A	0
PUBLIC INSTITUTION FOR SOCIAL SECURITY	100312	1.070	N/A	N/A	0
KDDI	100238	1.076	N/A	N/A	0
GS JAPANESE EQUITY FUND	100222	1.090	1.673	58	0
GS JAPANESE EQUITY FUND (ONSHORE)-USHI 2	350331	0.985	1.031	4	0
TOPIX	664	0.879	0.861	1	0
ISSUNBOSHI GS JAPAN MICROCAP	350339	0.829	0.845	1	0
JAPAN CORE EQUITY FUND	300977	0.679	0.690	1	0
GS JAPAN PORTFOLIO (UCITS) FUND	100084	1.063	1.054	-	0
MSCI JAPAN	661	0.942	0.949	-	0
GS JAPAN SMALL CAP FUND	100087	0.713	0.718	-	0
RUSSEL NR1 SMALL CAP	663	0.522	0.517	-	0

FIG. 5

004230 30648001

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## CONSTITUENT DATA FOR GS JAPANESE EQUITY FUND AS OF 20010521

CLICK ON THE PACE IDS FOR HISTORICAL SECURITY DATA.

ISSUER	PACE ID	SYNONYM	PRICE	SHARES	RETURN	DIVIDEND	SPLIT
ASAHI KASEI CORP	25655	'6054603	602.0000	149000	0.0067	-	-
ASAHI GLASS CO	25931	'6055208	1082.0000	82000	0.0065	-	-
BANDAI CO	26673	'6075057	3890.0000	18200	0.0104	-	-
BANYU PHARM	25836	'6077309	2305.0000	37000	-0.0171	-	-
TOPPAN FORMS	28179	'6105028	2045.0000	45900	0.0074	-	-
SUMITOMO REAL EST	28186	'6119449	3530.0000	4900	0.0173	-	-
NIPPON MINING & ME	28199	'6123202	730.0000	74000	0.0238	-	-
NTT DOCOMO	28219	'6129277	2500000.0000	172	0.0040	-	-
FUNAI ELECTRIC CO	28245	'6141550	9400.0000	4500	-0.0021	-	-
USS	28286	'6171494	3990.0000	300	-0.0124	-	-
CANON INC	26629	'6172323	5190.0000	38000	0.0058	-	-
CHIBA BANK	26961	'6190563	530.0000	78000	0.0134	-	-
YOSHINOYA D&C CO	25345	'6211851	178000.0000	410	-0.0166	-	-
DDI CORP	27628	'6248990	589000.0000	109	0.0867	-	-
DAIWA SECS GROUP	27075	'6251448	1394.0000	77000	0.0138	-	-
DOWA MINING CO	26063	'6278306	565.0000	125000	0.0561	-	-
MIZUHO HLDGS	44966	'6286280	699000.0000	144	-0.0029	-	-
EAST JAPAN RAILWAY	27641	'6298542	667000.0000	155	-0.0045	-	-
UFJ HLDGS	85771	'6335223	823000.0000	90	-0.0167	-	-
FUJI PHOTO FILM CO	25882	'6356525	5100.0000	27000	0.0262	-	-
FUJITEC CO	26296	'6356826	500.0000	71000	0.0142	-	-
HONDA MOTOR CO	26583	'6435145	5280.0000	18000	-0.0038	-	-
AIR WATER	25752	'6441465	579.0000	8000	0.0140	-	-
KANEBO	25618	'6483241	369.0000	97000	0.0453	-	-
KANEKA CORP	25774	'6483360	1115.0000	100000	0.0353	-	-
KAO CORP	25822	'6483809	3140.0000	43000	0.0096	-	-
KATOKICHI CO	25596	'6484244	3140.0000	22300	-0.0485	-	-
KEYENCE CORP	26460	'6490995	28360.0000	3000	0.0071	-	-
KIRIN BREWERY CO	25562	'6493745	1129.0000	52000	0.0098	-	-
KOMERI CO	26885	'6496250	2860.0000	12900	0.0142	-	-

FIG. 6

THIS DIAGNOSTIC REPORTS ALL OUTLIERS FOR A GIVEN MARKET.

- NORETURN : 13057 45812C10 INTEGRATED HEALTH SVCS INC
- NORETURN : 13375 98141A10 WORLD ACCESS INC
- NORETURN : 13377 97551510 WINSTAR COMMUNICATIONS INC
- NORETURN : 14137 86707110 SUNBEAM CORP
- NORETURN : 15138 59164710 METROCALL INC
- NORETURN : 16899 26915310 E SPIRE COMMUNICATIONS INC
- NORETURN : 17866 3763B10 FIRSTPLUS FINL GROUP INC
- NORETURN : 18257 58624410 MARCHFIRST
- NORETURN : 18442 89432710 PACIFIC GATEWAY EXCHANGE INC
- NORETURN : 18558 86787D10 SUNTERRA CORP
- NORETURN : 18790 92552920 VIATEL INC
- NORETURN : 18805 24791810 DELTA FINL CORP
- NORETURN : 19796 87959Y10 TELIGENT INC

- NORETURN : 19810
- NORETURN : 20109
- NORETURN : 20871
- NORETURN : 20885
- NORETURN : 21350
- NORETURN : 22441
- NORETURN : 23877
- NORETURN : 3100 1
- NORETURN : 3109 0
- NORETURN : 7063 9
- NORETURN : 713 14
- NORETURN : 86276
- STATIC : 10444 1841
- STATIC : 11136 8354
- STATIC : 11416 8690
- STATIC : 1145 68618
- STATIC : 1311 31943
- STATIC : 13304 055E
- STATIC : 13637 032E
- STATIC : 14093 032E
- STATIC : 15271 636E
- STATIC : 15695 635E
- STATIC : 16076 7434
- STATIC : 16340 431E
- STATIC : 16518 743E
- STATIC : 1704 36147
- STATIC : 17091 9297
- STATIC : 18849 379E
- STATIC : 19529 248E
- STATIC : 19541 4557
- STATIC : 19564 871E
- STATIC : 19823 449
- STATIC : 1985 9233

## TIME SERIES DATA FOR PACE ID 18257

HOME&gt; DATA&gt; SEARCH RESULTS&gt; HISTORICAL DATA&gt; UPDATE

DATE	UCP	AF	TR	VOL	USO	DIV
2000-09-11	20.812500	1.000000	-0.011863	766442	150214000	0.000
2000-09-12	20.062500	1.000000	-0.036036	476886	150214000	0.000
2000-09-13	19.250000	1.000000	-0.040498	405615	150214000	0.000
2000-09-14	20.000000	1.000000	-0.038961	553842	150214000	0.000
2000-09-15	18.687500	1.000000	-0.065625	1234148	150214000	0.000
2000-09-18	17.625000	1				
2000-09-19	18.062500	1				
2000-09-20	18.437500	1				
2000-09-21	17.875000	1				
2000-09-22	17.375000	1				
2000-09-25	15.875000	1				
2000-09-26	15.750000	1				
2000-09-27	14.125000	1				
2000-09-28	16.000000	1				
2000-09-29	15.687500	1				
2000-10-02	15.062500	1				
2000-10-03	14.375000	1				
2000-10-04	13.250000	1				

## UPDATE DATA

## HOME - DATA

DATE

PAGE ID

ATTRIBUTE

CURRENT VALUE

NEW VALUE

PASSWORD

FIG. 7

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## CROSS-SECTIONAL VOLATILITY : U.S.

HOME &gt; DATA &gt; DIAGNOSTICS &gt; CROSS-SECTIONAL VOLATILITY

CLICK ON THE DATES TO REPORT TOTAL RETURN OUTLIERS.

DATE	CROSS-SECTIONAL VOL	NUMBER OF SECURITIES
20010521	5.947	7955
20010518	4.798	7951
20010517	8.507	7914
20010516	7.261	7919
20010515	5.385	7918
20010514	6.642	7925
20010511	6.343	8038
20010510	5.994	8040
20010509	5.278	8042
20010508	6.100	8042
20010507	5.617	8039
20010504	5.290	8043

TOTAL RETURN OUTLIERS: U.S. : 20010517

HOME &gt; DATA &gt; DIAGNOSTICS &gt; CROSS-SECTIONAL VOLATILITY &gt; TOTAL RETURN OUTLIERS

ISSUER	SYNONYM	TOTAL RETURN	UNADJUSTED PRICE
INTERSHOP COMM AG	4609W10	-0.681818	4.812
COLLEGELINK COM INC	19453510	-0.500000	0.031
ADAPTIVE BROADBAND CORP	00650M10	-0.479592	3.188
NETWORK ENGINES INC	64121A10	-0.455224	2.281
ANC RENT CORP	00181310	-0.428571	2.000
COMMTouch SOFTWARE LTD	M2559610	-0.419355	2.250
OSAGE SYSTEMS GROUP INC	68773510	-0.416667	0.219
TUMBLEWEED COMMUNICATIONS CORP	89969010	-0.415525	10.000
ENHERENT CORP	29331310	-0.400000	0.562
NEEDHAM INC	58113110	-0.381818	1.000

20010409	6.864	8125
20010406	6.643	8123
20010405	10.277	8113
20010404	7.690	8123
20010403	9.506	8129
20010402	7.052	8134
20010330	7.753	8143
20010329	7.982	8143

FIG. 8



DATACENTER

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**README**

DATA THAT YOU EXTRACT IS COMMA DELIMITED AND WILL APPEAR IN YOUR BROWSER. YOU CAN COPY/PASTE THE DATA INTO EXCEL AND USE THE FOLLOWING EXCEL MENU OPTION SEQUENCE TO FORMAT THE DATA PROPERLY: DATA / TEXT TO COLUMNS / DELIMITED / COMMA / FINISH.

WHEN IN DOUBT : CLICK ON THE LINK IN EACH SECTION/FUNCTION SEPARATOR...THE RESULTING PAGE SHOULD EXPLAIN HOW TO USE THE FUNCTION OR WHAT IS IN THE SECTION. FOR EXAMPLE, IF YOU'RE NOT SURE WHAT THE SECURITY MATRIX EXTRACTOR DOES OR HOW TO USE IT, THEN CLICK ON THE LINK IN THE SEPARATOR ENTITLED SECURITY MATRIX EXTRACTOR.

DIRECT ALL QUESTIONS, COMMENTS, AND REQUESTS TO JOHN MATERO.

**SEARCH**

ISSUER

SYMBOL

CUSIP

SEDOL

PACEID

PORTFOLIO

ENTER SEARCH STRING,  
THEN HIT ENTER

**PORTFOLIO CONSTITUENT EXTRACTOR**

DATE  IN CCYYMMDD FORMAT

PORTFOLIO  USE THE  
ID PORTFOLIO SEARCH TOOL ON THE  
LEFT TO LOCATE A PORTFOLIO ID

**EXTRACT**

**SECURITY MATRIX EXTRACTOR**

DATE  TO

RANGE DATES IN CCYYMMDD FORMAT

FREQUENCY ☒ DAILY ☐ MONTHLY

SECURITY ID

SECURITY ID TYPE ☐ CUSIP ☐ SEDOL

**EXTRACT**

**MULTIPLE SECURITY EXTRACTOR UNDER CONSTRUCTION**

DATE  TO

RANGE DATES IN CCYYMMDD FORMAT

FREQUENCY ☒ DAILY ☐ MONTHLY

SERIES ☒ PRICE ☐ TOTAL RETURN ☐ SPLIT

TYPE FACTOR ☐ SHARES ☐ VOLUME  
☐ DIVIDEND

SECURITY ID LIST

**EXTRACT**

HEALTH WARNING: THE MULTIPLE SECURITY EXTRACTOR IS BEING DEVELOPED. IT WORKS FOR US SECURITIES ONLY. CURRENTLY, CUSIPS ARE THE ONLY ACCEPTABLE SECURITY IDS.

**MULTIPLE ACCOUNT EXTRACTOR**

START DATE  IN CCYYMMDD FORMAT

PORTFOLIO ID LIST

**EXTRACT**

**DATA DIAGNOSTICS**

PORTFOLIO STATS

DATE  TO   
IN CCYYMMDD  
FORMAT

PORTFOLIO ID

USE THE PORTFOLIO SEARCH TOOL ON  
THE LEFT TO LOCATE A PORTFOLIO ID

**RUN**

**DOCUMENTATION**

US  
PRICING DATA FROM CRSP AND FAME  
SPLIT PROCESSING  
DIVIDEND CODE DESCRIPTIONS  
CORPORATE ACTIONS GUIDE  
DATA INVENTORY

INTERNATIONAL  
EXTEL TRADING VOLUME DATA FOR  
INTERNATIONAL EQUITIES  
JAPANESE EQUITY DATA COVERAGE  
AND ANALYSIS  
EXTEL INTERNATIONAL CORPORATE  
ACTION

CODES + DESCRIPTIONS  
EXTEL COUNTRY CODES+DESCRIPTIONS  
OFFICIAL CCY-TO-EUR CONVERSION RATES  
GENERAL

HOW PACE DEFINES AND DEALS  
WITH OUTLIERS  
MONITORING PRODUCTION

**LINKS**

PACE  
DATA DIAGNOSTICS  
SYNONYM MAINTENANCE  
BENCHMARK MAINTENANCE  
ACCOUNT MAINTENANCE

AUTOSYS  
BATCH LOAD STATS  
UPLOAD FILES

RELATED  
(ALMOST) GLOBAL HOLIDAY CALENDAR  
EDGAR DB SEARCH  
YAHOO FINANCE  
YAHOO IPO CALENDAR  
YAHOO SPLITS CALENDAR  
STOCK EXCHANGE LINKS

FIG. 9

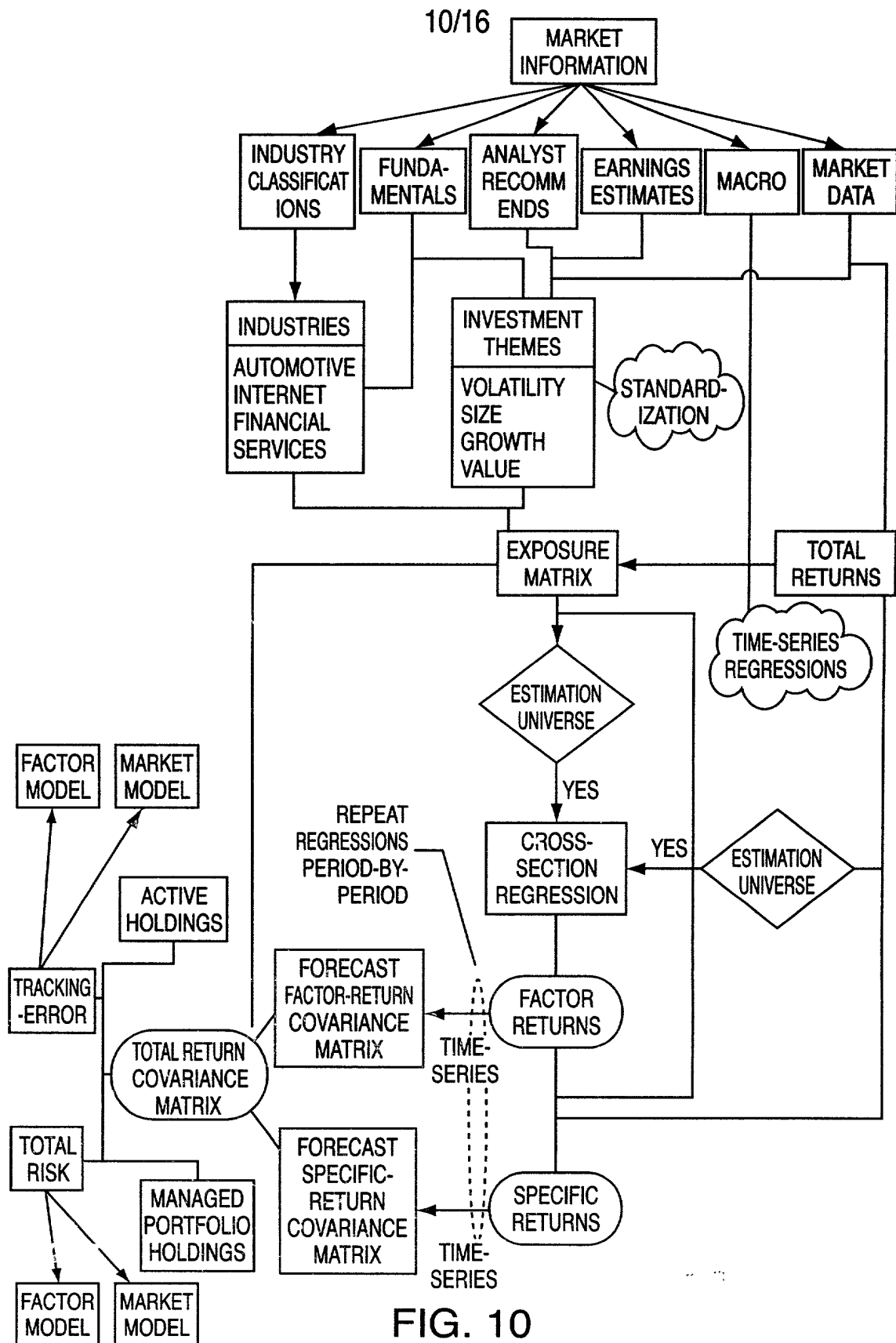


FIG. 10



DEFINITION OF MODEL FROM CUSTOMPZ  
(HORIZON,FACTORLIST,INDUSTRYLIST,ESTIMWGHT,SPECSHRINK)

STRUCTURE	FIELD(1)	FIELD(2)	FIELD VALUE
MODEL	.NAME.		'BARRA_MONTH_10
MODEL	.F.	ESTIMUNIV	'BARRA'
		RISKS	{1 X 13 CELL}
		RISK NAMES	{1 X 13 CELL}
		SECTORS	{1 X 13 CELL}
		SECTOR NAMES	{1 X 13 CELL}
		WEIGHTS	'BARRA'
		PROCEDURE	'BARRA'
		NAME	'BARRA'
		HORIZON	'DAILY'
		BEG	19730201
		END	20000114
		CAL	'MONTH'
		INDUSTRIES	{1 X 52 DOUBLE}
		EXPOSURES	{1 X 65 DOUBLE}
		RISKLIST	{1 2 3 4 5 6 7 8 9 10 11 12 13}
		INDUSTRYLIST	{1 X 52 DOUBLE}
		SECTORS LIST	{1 X 13 CELL}
		DATES	{6813 X 2 DOUBLE}
		PERIODS	252
MODEL	.OMEGA.	NAME	'EXP2014'
		LAG	4
		HALFLIFE	20
		MIN	100
		MAX	100
MODEL	.DELTA.	NAME	'EXP20S10'
		HALFLIFE	20
		MIN	20
		MAX	100
		SHRINK	0.1000

FIG. 12

## PACE PORTFOLIO OBJECT

ALL DATA ELEMENTS REQUIRED TO DO RESEARCH AND MEASURE RISK AND RETURN RESIDE IN A PORTFOLIO'S OBJECT. THE FOLLOWING IS AN EXAMPLE OF FIELDS OF A PORTFOLIO OBJECT (I.E., THE NAMES OF THE FIELDS). THE OBJECT'S NAME IS "PORT".

PORT.NAME		
PORT.PERMNOS		
PORT.WEIGHTS		
PORT.PRICES		
PORT.AMOUNTS		
PORT.HOLDINGS		
PORT.PORTFOLIOVALUE		
PORT.PORTFOLIOEXPOSURE		
PORT.MNGD_LOADINGS		
PORT.MNGD_RETURN.STYLECONTRIB		PORT.BETAS
.INDUSTRYCONTRIB		PORT.ACTIVE_WEIGHTS
.STCK_LOADINGS		PORT.ACTIVE_PERMNOs
.CTYCONTRIB		PORT.ACTIVE_HOLDINGS
.CCYCONTRIB		PORT.ACT_LOADINGS
.FACTORCONTRIB		PORT.ACT_RISK
.SPECIFICCONTRIB		PORT.ACT_MC
.ESTIMATED_TOTAL		PORT.DELTA
.IPVO_TOTAL		PORT.FACTORCOV
.MODELERROR		PORT.RISKFACTORRETURN
.BENCHMARK		PORT.RISKSPECIFICRETURN
.MARKET		PORT.RISKEXPOSUREMATRIX
.WPRIMER		PORT.HOTSPOTS
.ASSETCONTRIBUTION		PORT.ATTRIBFACTORRETURN
.EXPECTED_MARKET		PORT.ATTRIBSPECIFICRETURN
.MARKET_TIMING		PORT.ATTRIBEXPOSUREMATRIX
.EXCEPTIONAL		PORT.IMPLIEDVIEW
PORT.MNGD_RISK		PORT.REALTE
PORT.MNGD_MC		PORT.REALVOL
PORT.RISKMODELNAME		PORT.TURNOVER
PORT.MODELID		PORT.XSECTIONVOL
PORT.NUMBEROFASSETS		PORT.BIAS20DAY
PORT.PERCENT_CASH		PORT.BIAS60DAY
PORT.DATE		PORT.BIAS90DAY
PORT.RISKFREE		PORT.IR
PORT.ASSET_RETURNS		PORT.SR
PORT.LIQUIDITY		PORT.MULTI_ATTRIB
PORT.MKT_NAME		PORT.REALBETA
PORT.MKT_WEIGHTS		
PORT.MKT_PERMNOs		
PORT.PREMIUM		
PORT.BM_NAME		
PORT.BM_WEIGHTS		
PORT.BM_PERMNOs		
PORT.BM_HOLDINGS		

FIG. 13

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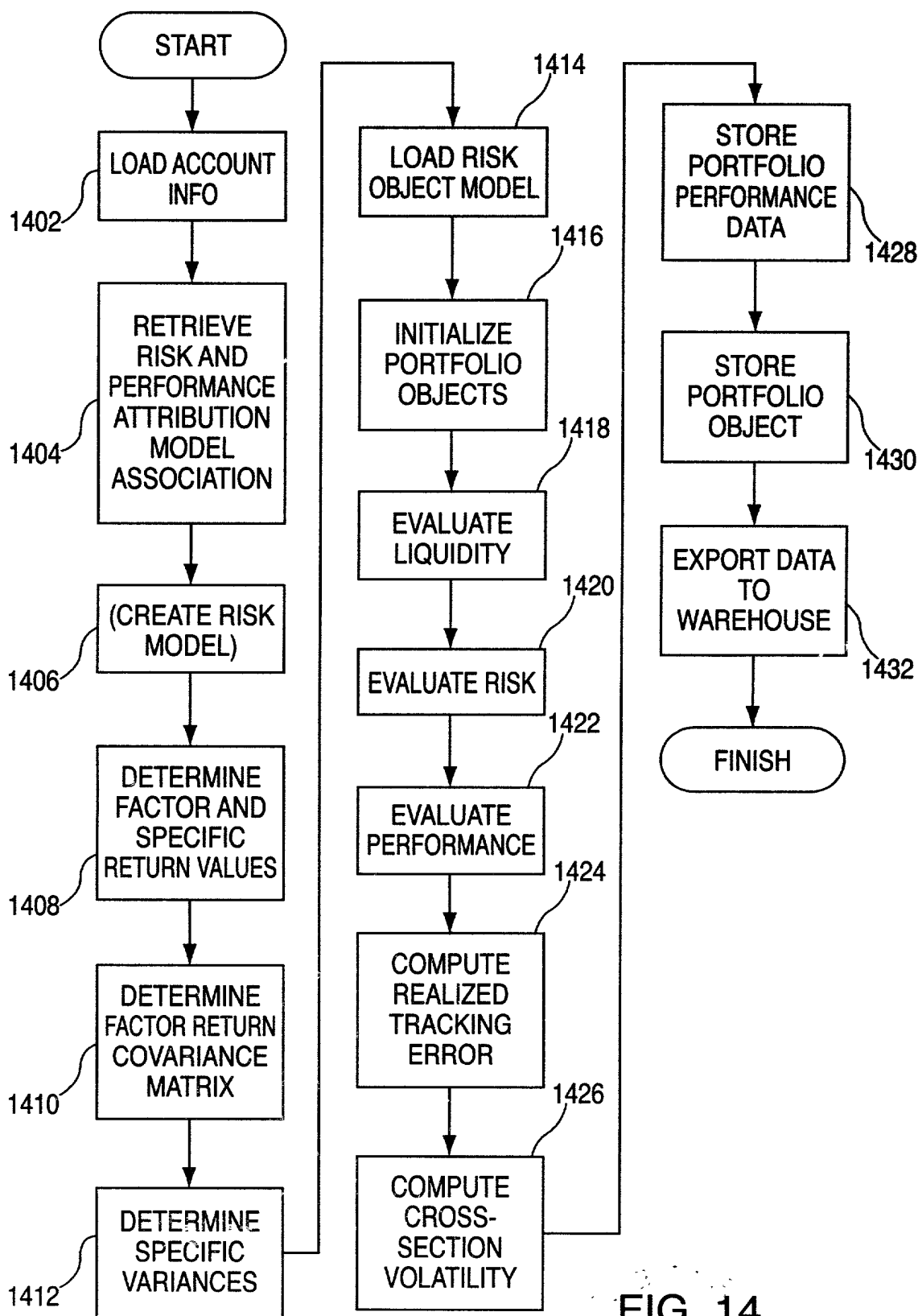
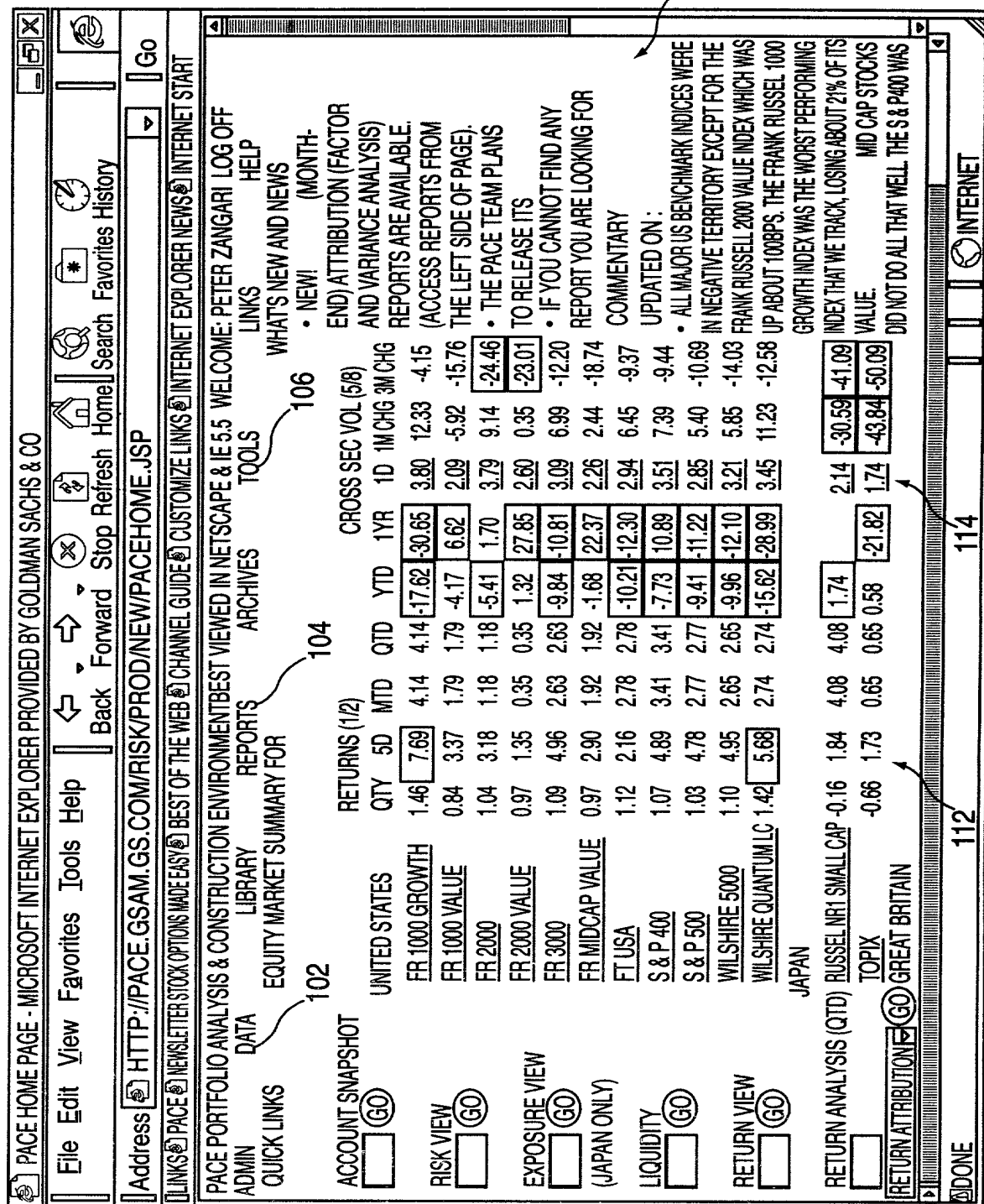


FIG. 14



**FIG. 15**

